

## **REMARKS**

Favorable reconsideration and allowance of this application are requested.

### **I. Preliminary Comments and Discussion of Claim Amendments**

As a procedural note, the present amendment is being filed concurrently with a formal Request for Continued Examination (RCE) under 37 CFR §1.114. Accordingly withdrawal of the "finality" of the March 9, 2005 Official Action is in order so as to allow entry and consideration of the amendments and remarks presented herewith.

By way of the amendment instructions above, independent claims 1 and 19 have been revised so as to emphasize that the recited steps are **sequentially** practiced. In addition, each of the independent claims 1 and 19 have been revised so as to clarify that a **torsion** force is exerted **on the connected end parts** of the surgical cable which torsional force **responsively** induces a **tension** force in the surgical cable sufficient to urge the bone parts together. Independent claim 19 further emphasizes that the torsion force is applied to a **device inserted between the connected end parts and the bone parts to be fixed**. See in this regard, page 4, lines 3-18 of the originally filed specification for support.

Claims 3 and 20 have been cancelled as redundant in view of the amendments made to their respective independent claims 1 and 19.

Claim 23 is new and is dependent multiply from claim 1 or 19. New claim 23 requires that the method be practiced with a surgical cable which comprises polyethylene fibers having a tensile strength of at least 1.8 Gpa and a modulus of at least 60 Gpa. Support for new claim 23 is found on page 2, lines 18-21.

Therefore, following entry of the present amendment claims 1-2, 4-19 and 21-23 will remain pending for which favorable reconsideration and allowance is solicited.

## II. Response to Art-Based Rejections

### A. Response to 35 USC §102(b) Issue

The Examiner asserts that prior claims 1-4, 6, 9-15 and 17-21 are anticipated (35 USC §102(b)) by USP 5,797,915 to Pierson et al. in this regard, the Examiner asserts that:

“The cable [102 of Pierson et al] is twisted having an eye/knot, e.g., 550, at one end, the torsion force is exerted on the cable through the eye and a torsion force is exerted on the cable below the knot (see alternate embodiments disclosed in figures 5A-6C)....Moreover, the torsion force is exerted on the cable through the returning ends and on a twisting device, e.g., 106, running through the return ends (see various embodiments disclosed in figures 1-7).”

The Examiner’s comments evidence a misunderstanding of the present invention which has apparently led to an incorrect interpretation of Pierson et al. In this regard, it is noted, for example, that the “torsion” to which the Examiner refers is merely a loop of one end of the cable around a proximal length of that same cable. Thus, as the Examiner notes, the cable end 550 of Pierson et al is merely looped around a proximal length of the same cable. While this may in fact be a “twisting” of such end 550, it is not a twisting which ***induces tension in the length of cable around the bone 104 sufficient to fix the same.*** Indeed, contrary to the present invention, Pierson et al specifically require that tension on the bone 104 must be exerted by some form of “biasing means” such as helical spring 554 or Belleville spring 654.

Pierson et al most certainly does not disclose or suggest ***twisting of a device inserted between connected end parts and the bone parts to be fixed*** as required by independent claim 19. Indeed, the “device” of Pierson et al (which the Examiner is

apparently reading as the crimp block 110 and its various alternatives) is most certainly **NOT** twisted. Therefore, Pierson et al cannot possibly disclose or suggest any device which, when twisted exerts a **torsional** force on connected end parts of a surgical cable when then **responsively** induces a **tension** in the surgical cable sufficient to urge together the bone parts to be fixed.

Applicants also note that the Examiner seems to have overlooked a significant feature of the present invention – namely the sequence of actions required by the claims. Specifically, in the process of the present invention as defined by independent claims 1 and 19, a sequence of steps must be performed. In one of the claimed steps, the end parts of the cable are connected together. Only *after* connecting the end parts together is the cable brought under tension by exerting a force. Because of this sequence of actions, the load of the cable is not fully exerted on the connected end parts which explains why the problems normally caused by knotted end parts are not encountered with the technique of the present invention.

To the contrary, in Pierson et al, the sequence is opposite to that required by the pending claims herein. That is, according to Pierson et al, in one step the cable is first placed under tension, and then only after tensioning is the cable retained in a retainer 108. (See column 3, lines 1-5 of Pierson et al). Therefore, Pierson et al cannot anticipate the present invention as defined by independent claims 1 and 19 and claims 2-4, 6, 9-15, 17-18 and 20-21 dependent therefrom.

Thus, Pierson et al cannot possibly anticipate independent claims 1 and 19 as presented above.

#### **B. Response to 35 USC §103(a) Issue**

Nor can Pierson et al render “obvious” (35 USC §103(a)) the present invention as defined by independent claims 1 and 19 when further combined with Dunn et al (USP

4,790,850). The inappropriateness and deficiencies of Pierson et al has already been discussed above. Dunn et al fails to cure the same.

Specifically, applicants note that the end parts of the Dunn et al cable are *not* connected together. Instead, Dunn et al teach that an eye is provided at each end of the cable, and that each eye is **separately** secured by a screw. Thus, Dunn et al explicitly teach that the eyes at each end of the cable are not connected to one another. As such, an ordinarily skilled person would not consider combining Pierson et al and Dunn et al in the first instance and even if combined the present invention would not result.

Hence, withdrawal of the rejection advanced against claims 5 and 7 under 35 USC §103(a) based on the combination of Pierson et al and Dunn is in order.

Finally, claims 8, 16 and 22 attracted a rejection based on the combination of Pierson et al and Crouch et al (USP 4,788,814). Applicants suggest that Crouch et al is even less pertinent than Dunn et al discussed above.

Specifically, even if it is assumed for the moment that one of ordinary skill in this art might consider using a textile winder with an air splicer of the variety disclosed Crouch to connect the ends of the cable in Pierson et al, such connection would only occur *after* the cable is placed under tension....i.e., since Pierson et al disclose that the cable is first placed under tension, and then only after tensioning is the cable retained in a retainer. In any event, neither Pierson et al nor Crouch disclose or suggest twisting of a surgical cable whose end parts are connected so as to exert a **torsional force** on such connected end parts which **responsively induces** tension in the length of cable around the bone 104 sufficient to fix the same. Thus, the present invention would not be the "obvious" result of the combination of Pierson et al Crouch et al.

Withdrawal of all rejections advanced against claims 8, 16 and 22 under 35 USC §103(a) is therefore in order.

**DIRKS et al**  
**Serial No. 10/772,413**  
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**III. Conclusion**

Every effort has been made to advance prosecution of this application to allowance. Therefore, in view of the amendments and remarks above, applicants suggest that this application is in condition for allowance and early notification of the same is requested.

Respectfully submitted,

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